HPV-associated diseases, medical technologies used in CC, CIN 1, CIN2, CIN3, ASCUS, the frequency of their use and the price for the services were determined. **RESULTS:** Vaccination cost for cohort of girls (122,799) resulted in 23.2 million USD. The cost of prevented damage is estimated 16.5 million. Additional cost - 6.7 million. Years of life saved - 11172. The coefficient of "cost-effectiveness" of using Cervarix vaccine was calculated for 598 USD for one year of life saved. The cost of prevented damage was identified to be 38.5 million based on the number of prevented cases of CC, CIN 1, CIN2, CIN3, ASCUS and the cost of each case of illness, disability, and death. **CONCLUSIONS:** The cost of potential annual preventative damage/gain as a result of Cervarix vaccine application may reach 38.5 million USD. When comparing the annual preventative damage to the annual cost of vaccination for 12 year old girls in Kazakhstan, the cost of prevention was estimated to be 1.7 times more than the cost of one vaccine cohort.

PIN18

ANÁLISE CUSTO-MINIMIZAÇÃO (ACM) DO CLORIDRATO DE VALGANCICLOVIR COMPARADO COM GANCICLOVIR NA PROFILAXIA DA INFECÇÃO POR CMV EM TRANSPLANTADOS RENAIS

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OBJETIVOS: Realizar Análise Custo-Minimização (ACM) do Cloridrato de Valganciclovir comparado com Ganciclovir na profilaxia da infecção por CMV em transplantados renais. **MÉTODOS:** Os dados acerca da eficácia semelhante dos antivirais foi obtido por meio de Revisão Sistemática. Foram elencadas as seguintes categorias de custo direto: medicamento e materiais descartáveis. Foram simulados três esquemas de profilaxia: Ganciclovir 1g intravenoso (IV) 3x/dia durante período de internação e Ganciclovir 1g VO por 3x/dia até cem dias (Esquema A); Ganciclovir 1g IV 3x/dia durante internação seguido pelo Valganciclovir 900mg VO uma vez/dia até cem dias (Esquema B) e Valganciclovir 900mg VO na internação e após a alta até completar cem dias de uso (Esquema C). Foram feitos os cálculos relativos aos anos de 2010 e 2011 com base no número estimado de pacientes submetidos a transplante de um hospital do Sistema Único de Saúde – Brasil. Os valores dos medicamentos foram obtidos no Banco de Preços em Saúde (BPS) do DATASUS e a lista de conformidade da Câmara de Regulação do Mercado de Medicamentos (CMED) da ANVISA. **RESULTADOS:** Em 2010, o custo médio por paciente do esquema A foi de R$ 18.097,79, do segundo foi de R$ 22.754,63 e do terceiro foi de R$ 21.096,00. Em 2011, o custo médio por paciente do primeiro esquema foi de R$ 16.393,27, do segundo foi de R$ 22.603,35 e o terceiro foi de R$ 22.346,00. **CONCLUSÕES:** Os resultados demonstraram menor custo de profilaxia para CMV com Ganciclovir 1g IV, e o segundo menor com Valganciclovir 900 mg VO. A administração IV do Ganciclovir versus a VO do valganciclovir devem ser analisadas com outros estudos, considerando-se também os riscos inerentes à administração e reações adversas.

PIN19

ECONOMIC EVALUATION OF TREATMENTS FOR CHRONIC HEPATITIS B

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OBJECTIVES: To conduct a cost-utility study in the context of Brazil's Public Health Care System of the drugs adefovir, entecavir, interferon alpha, pegylated interferon alpha, lamivudine and tenofovir for chronic hepatitis B. **METHODS:** For efficacy and safety data, a systematic review was carried out. Utility data and transition probabilities between health states were searched in the literature. The Markov model was developed in a time horizon of 40 years with annual cycles for three groups of patients with chronic hepatitis B: HBeAg positive, HBeAg negative, and all patients. These strategies were compared to a fourth group that received no treatment. Discount rates of 5% were applied and sensitivity analyses were performed. **RESULTS:** Tenofovir offered the best cost-utility ratio for the three evaluated models: U$397, U$385 and U$384 (per QALY, respectively for HBeAg positive, negative, and all patients). All other strategies were completely dominated. The sequence of cost-utility in the three models was: tenofovir, entecavir, lamivudine, adefovir, telbivudine, pegylated interferon alpha, and interferon alpha. In the sensitivity analysis, adenofovir became less cost-utility than telbivudine in some situations. **CONCLUSIONS:** In this study, tenofovir presented the best cost-utility ratio. The results obtained in this study will be valuable in decision-making and in the review of the clinical protocol, mainly involving the allocation of available resources for health care.

INFECTION – Health Care Use & Policy Studies

PIN20

EVOLUCIÓN DEL CONSUMO Y VENTAS DE ANTIBIÓTICOS EN CHILE 1998-2012

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INTRODUCTION: Desde el año 1999 en Chile se exige la receta médica para la venta de antibióticos (ATB) en farmacias. Hasta el momento se desconoce el efecto a largo plazo de esta medida sobre el consumo y las ventas de ATB. **OBJECTIVOS:** Determinar los niveles y tendencias de consumo y ventas de ATB en Chile antes y después de implementar la venta con prescripción médica. **METODOLOGÍAS:** Mediante un estudio retrospectivo de la base de datos del International Marketing System (IMS), se analizaron las ventas de ATB en farmacias entre 1998-2012. Las unidades vendidas se transformaron en Dosis Diaria Definidas (DDD), DDD/1000 habitantes/día (DHD) y costo/DDD. Las tendencias se analizaron mediante regresiones lineales. **RESULTADOS:** Se observó una disminución del 17% en el consumo de ATB con la aplicación de las medidas regulatorias (11.8 a 9.8 DHD, en 1998 y 2012, respectivamente). No obstante, las quinolonas, cefalosporinas y macrólidos aumentaron un 298%, 31%, 27%, respectivamente, durante el periodo estudiado. La mayor disminución respecto al año 1998 ocurrió en el año 2002 (-38%), mientras que entre 2002 y 2012 hubo un incremento del 34% en el consumo. El costo/DDD disminuyó un 15% entre 1998 y 2003 (0.71 a 0.60 USD/DDD), mientras que entre 2003 y 2012 aumentó en un 47% llegando a 0.88 USD/DDD en 2012. Durante el periodo 2000-2012 el consumo de ATB aumentó un 32% (de 7.4 a 9.8 DHD). El patrón de consumo total estuvo dado principalmente por las penicilinas de amplio espectro (53%, 61.1 DHD), siendo la amoxicilina el ATB más usado (44%, 50,5 DHD). **CONCLUSIONES:** Las medidas regulatorias permitieron disminuir el consumo y los costos/DDD de ATB en Chile. Sin embargo, el aumento progresivo observado indica la necesidad de revisar la calidad en la utilización de los ATB y el cumplimiento de la regulación vigente.

MUSCULAR-SKELETAL DISORDERS – Clinical Outcomes Studies

PMS1

TREATING PSORIATIC ARTHRITIS WITH BIOLOGICAL DISEASE MODIFYING ANTIRHEUMATIC DRUGS: SYSTEMATIC REVIEW AND META-ANALYSIS TO EVALUATE EFFICACY AND SAFETY

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OBJECTIVES: To evaluate the efficacy and safety of biological disease modifying antirheumatic drugs (DMARDs) adalimumab, etanercept, golimumab and infliximab in the treatment of psoriatic arthritis (PA) in adults. **METHODS:** We conducted a systematic review of controlled clinical trials to access the efficacy and safety of these agents in patients with active PsA which have or have not been treated with biological DMARDs before. The databases MEDLINE, EMBASE, LILACS and Central Cochrane where searched until February 2013 to identify articles that reported data on clinical improvement measurements and adverse events. Metanalysis were performed using Review Manager® 5.1 and the Random Effect Model. **RESULTS:** Seven RCTs comparing biological DMARDs with placebo where included; two comparing either adalimumabe, etanercept and infliximab to placebo, and one comparing golimumab to placebo. After 12 weeks of treatment, adalimumabe and etanercepte were more effective than placebo with respect to 20% improvement from baseline in the American College of Rheumatology response criteria (ACR 20); Risk Ratio 3.42 ([2.08, 5.63]; I^2 38%) and 4.15 ([2.71, 6.36]; I^2 0%), respectively. After 16 weeks, infliximab patients also achieved ACR20 in a greater rate than placebo; RR 5.71 ([3.53, 9.25]; I^2 0%). However, results after 54 weeks of treatment showed no significant differences between infliximab and placebo; RR 0.98 ([0.82, 1.18]; I^2 0%). Golimumab was more effective than placebo at 24 weeks; ACR20 RR 4.53 ([2.75, 7.48]). After 16 weeks infliximab shown a 50% reduction in the psoriasis area and severity index (PASI50) in a greater rate than placebo, RR 10.67 ([5.52, 20.64]; I^2 1%), however, once again 54 weeks results have shown no significant differences between infliximab and placebo, RR 0.94 ([0.80, 1.12] I^2 66%). Adverse events where similar between the biological and placebo groups, nevertheless the placebo group showed a slightly higher rate of adverse events than adalimumabe; RR 0.68 ([0.50, 0.92]; I^2 0%). **CONCLUSIONS:** Results show clinical improvement with the use of biological DMARs in the treatment of PA. Still, there is a lack of evidence to support the spread the use of these medicines especially in synthetic DMARD naïve patients.

MUSCULAR-SKELETAL DISORDERS – Cost Studies

PMS2

ESTIMATING THE BUDGET IMPACT IN BRAZILIAN PUBLIC HEALTH CARE SYSTEM OF TOCILIZUMAB REIMBURSEMENT AS A RHEUMATOID ARTHRITIS FIRST-LINE BIOLOGICAL THERAPY

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OBJECTIVES: Rheumatoid arthritis (RA) is a systemic autoimmune disease which affects 0.5% of the population in developing countries. In Brazilian public health care system (SUS) infliximab, etanercept, adalimumab, golimumab, certolizumab (anti-TNF), abatacept (T-lymphocyte activation inhibitor) and tocilizumab (IL-6 inhibitor) are available as biological treatment. However, only anti-TNF therapies are indicated as standard of care for first-line biologic therapy. As tocilizumab is a known effective and cost-saving drug for this indication, the present study aims to evaluate the budget impact of its inclusion in public RA biologics first-line setting. **METHODS:** A model was developed in order to assess the budget impact of tocilizumab reimbursement as a first-line biological therapy under SUS perspective from 2014-2018. Only expenditures with biologics were accounted according to posology presented in Brazilian Ministry of Health RA Guideline considering a mean 67kg-weighted patient. Prices were obtained from public disclosures. Forecasts were made pursuant to government sources (IBGE, DataSUS) and market research-based data. Different mix scenarios based on varying growth rate of tocilizumab usage were assessed to evaluate total savings. A two-way sensitivity analysis was conducted changing diagnosis and biologics use rates. Costs were reported in Brazilian currency (BRL1.00~USD0.51 Feb2013). **RESULTS:** Annual costs per patient were BRL20,002, BRL25,625, BRL26,899, BRL18,330, BRL22,386, BRL15,232 and BRL27,391, for tocilizumab, etanercept, adalimumab, infliximab, abatacept, certolizumab and golimumab, respectively. Concerning different tocilizumab public usage scenarios, if it reaches 20% in 2018, savings could sum BRL143,058,554 (-2.8%) in the analyzed period. Nonetheless by achieving a 40% usage savings would be even higher resulting in a potential BRL318,643,978 (-6.3%) economy in the same period. Sensitivity analysis showed savings ranges of: BRL101,782,493-BRL262,029,470 (20% usage scenario) and BRL228,085,067-BRL579,597,311 (40% usage scenario). **CONCLUSIONS:** The public inclusion of tocilizumab in 2014 as a RA first-line biologic therapy and its usage enhance would result in increasingly savings arousing significant impacts in public health care budget.

PMS3

AVALIAÇÃO DO IMPACTO ORÇAMENTÁRIO COM A INCORPORAÇÃO DE IMUNOBIOLÓGICOS EM UMA OPERADORA DE PLANOS DE SAÚDE – 2012

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OBJETIVOS: Avaliar o impacto orçamentário com a incorporação de imunobiológicos endovenosos (IMB-EV) em uma Operadora de Planos de Saúde de Fortaleza